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Modeling, Simulation, and Analysis (MS&A) Space User's Group (SPUG) Outcomes

13-14 December 2001

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Class:**

UC Agenda, 13-14 December 2001

Thursday, 13 December 2001, USSPACECOM J3 Conf Rm #318

0800-0900   Welcome remarks and
   Introductory Brief   MAJ McLagan

0900-0930   JWARS Update   LtCol McIntyre (JWARS Office)

0930-1200   JSSPAR (JWARS) Update   Mr. Ron Smith (GRCI Corp.)

1200-1330   Lunch   Self

   Move to PAFB Leadership Development Center (LDC)

1330-1430   SBR Analysis / Lightning Model   Mr. Brian Landis (NG-TASC)

1445-1600   Space MSRR Demo   Maj Chuck Schwarz (AFSPC)

Friday, 14 December 2001, PAFB Leadership Development Center (LDC)

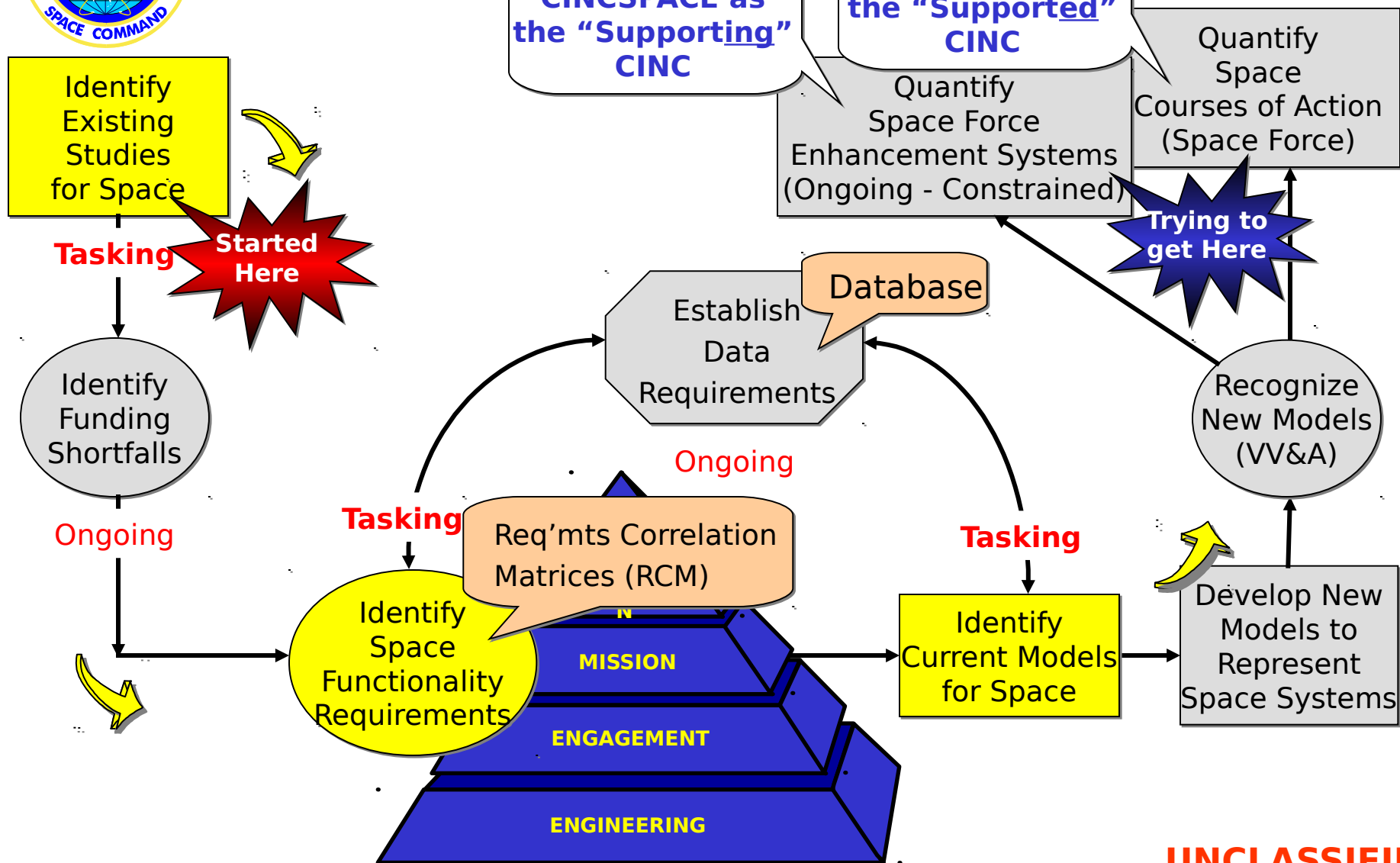0800-0930   Space Functionality Req'mts   MAJ McLagan

0930-1200   Discussion / Taskers   MAJ McLagan

   Move Back to USSPACECOM HQ

1200-UTC   USSPACECOM Christmas Party   Santa Claus

SPUG Strategy w/Dec.'01 Taskers

CINCSPACE as the "Supporting" CINC

CINCSPACE as the "Supported" CINC

Identify Existing Studies for Space

Quantify Space Force Enhancement Systems (Ongoing - Constrained)

Quantify Space Courses of Action (Space Force)

Tasking

Started Here

Trying to get Here

Identify Funding Shortfalls

Establish Data Requirements

Database

Recognize New Models (VV&A)

Ongoing

Ongoing

Tasking

Req'mts Correlation Matrices (RCM)

Tasking

Identify Space Functionality Requirements

N

MISSION

ENGAGEMENT

ENGINEERING

Identify Current Models for Space

Develop New Models to Represent Space Systems

SPUG Charter

Forum of space <u>and</u> MS&A stakeholders gathered to:

⇨ Define requirements for:

✓ Space functionaility in MS&A

✓ Funding priorities

✓ MOEs/MOPs

⇨ Create a win-win situation for the joint, service component, and private/academic sector communities for quantifying space and CNO through MS&A.

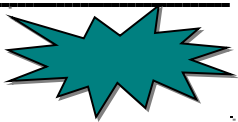# Who is Doing Space / CNO Analysis?

✰ SMDBL   SBR Analysis (x2)   JANUS / STK

✰ SMC GPS (and DSP?) SEAS Model

✰ AFSAA   Thunder   Various

✰ AFSPC ASAC Various Various

✰ USSPACECOM/AN   GPS, ISR, & BFT   Lightning Model

✰ ?

✰ ?

Resources:

Taskers from Dec.'01 SPUG

Topic	POC	Status
Look at modeling space in JICM to quantify theater-level effects	USSPACECOM/AN & AFSPC Working	
Establish a repository of space studies (MSRR)	AFSPC Working	
Lead and leverage analysis to quantify space / CNO	All Working	
Populate, maintain, & create awareness of space / CNO MSRR	All Working	

Taskers from Dec.'01 SPUG (Cont.)

Topic	POC	Status
Refine space functionality requirements matrix USSPACECOM/AN Working		
Post briefings/minutes on the MSIAC SPUG site USSPACECOM/AN by 15 Jan. '02 & MSIAC Working		
Anticipate / prepare Joint Change Requests to USSPACECOM/AN, model space / CNO in JWARS JWARS Office, & JSSPAR Future		
USSPACECOM accept JSSPAR recommendations and provide USSPACECOM/AN, input (e.g. data, SMEs, etc.) JWARS Office, & JSSPARWorking		

JSSPAR Recommended Actions

1. US Space Command
   - Provide access to SMEs to facilitate design of tables that capture sufficient satellite operational parameters for campaign analysis
2. JSSPAR
   - Work with JWARS and USSPACECOM to define data tables needed for accurate space representation
3. JWARS
   - Code JWARS to read from tables in advance of actual data
4. US Space Command
   - Populate data tables with probabilities
     - Detection capabilities, capacities and availability of space systems
     - Vulnerabilities, susceptibilities, and limitations
       - Weather, jamming, space environment, …
   - Prioritize DSP and ISR functionality in JWARS

Take Aways

Required Commitment

Identify space as a priority of funding for M&S and M&S as a priority for space

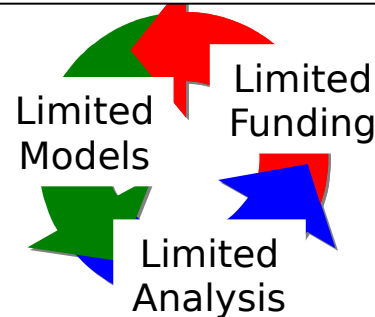Gain commitment among the space and MS&A stakeholders (SPUG)

Identify/Develop a suite of space models for DoD

Conduct, lead, and leverage studies to quantify space systems

Restated Problem

Limited Models

Limited Funding

Limited Analysis

Infuse space M&S into training exercises

Perform analysis of space-based systems

Imperatives

The opportunity is ripe to solve the problem with the right commitment

End State

Quantify the military utility (added value) of space systems in joint military ops